



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,864	08/25/2003	Nam-il Cho	1572.1226	3893
21171	7590	06/23/2004	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005				KING, ANITA M
ART UNIT		PAPER NUMBER		
		3632		

DATE MAILED: 06/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/646,864	CHO ET AL.
	Examiner	Art Unit
	Anita M. King	3632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 25 August 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,2,4-6,8-22,26,27 and 33 is/are rejected.
- 7) Claim(s) 3,7,23-25 and 28-32 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 25 August 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

This is the first office action for application number 10/646,864, Display Apparatus, filed on August 25, 2003.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 8, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 2,890,010 to Barkheimer. Barkheimer discloses a display apparatus comprising: a display main body (40) provide with a screen; a base member (10) supporting the display main body; a cylinder assembly (19-23) provided between the display main body and the base member to liftably support the display main body, the cylinder assembly exerting a supporting force which is at least as great as a weight of the display main body; wherein at least one additional/auxiliary cylinder assembly (16-18) is provided, with a first end combined to the display body, and a second end combined to the base member; wherein the cylinder assembly extends and retracts to vary a distance between the display main body and the base member; and wherein the auxiliary cylinder comprises a guide pipe (18) combined with the base member and a guide rod (16 & 17) combined with the display main body, slidably provided in the guide pipe.

Claims 1, 2, 4, 9, 11, 13-15, and 18-22 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 4,395,010 to Helgeland et al., hereinafter, Helgeland. Helgeland discloses a display apparatus comprising: a display main body (7) provide with a screen; a

base member (13) supporting the display main body; a cylinder assembly provided between the display main body and the base member to liftably support the display main body, the cylinder assembly exerting a supporting force which is at least as great as a weight of the display main body; a cylinder bracket (4 & 70) provided between the display main body and the cylinder assembly, which is respectively combined with the display main body and the base member; wherein the cylinder assembly comprises a pressurized cylinder (8) combined with the base member, a piston slidably provided in the cylinder, and a cylinder rod (15) with a bottom combined with an upper end part of the piston and a top combined with the cylinder bracket; wherein the cylinder assembly extends and retracts to vary a distance between the display main body and the base member; a cylinder supporter (2) combined with the base member to accommodate and support the cylinder; a display bracket (70) combined to the display main body; a cylinder bracket (4) combined to the display bracket and the cylinder assembly; wherein a force to extend the cylinder rod due to pressure on the piston is at least as great as a weight of the display main body; wherein a predetermined force to extend the cylinder rod due to pressure on the piston balances a component of a weight of the display main body such that when no external force is applied to vary the distance between the display body and the base member, the display main body remains stationary relative to the base member; and wherein a predetermined force to extend the cylinder rod due to pressure on the piston exceeds a component of a weight of the display main body to compensate for static friction between an inner wall of the cylinder and a circumference of the piston, such that when no external force is applied to vary the distance between the display main and the base member, the display main body remains stationary relative to the base member.

Claims 1, 9, 10, and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,381,125 to Mizoguchi et al., hereinafter Mizoguchi. Mizoguchi discloses a display apparatus comprising: a display main body (72) provide with a screen (72a); a base member (71) supporting the display main body; a cylinder assembly provided between the display main body and the base member to liftably support the display main body, the cylinder assembly exerting a supporting force which is at least as great as a weight of the display main body; a cylinder bracket (76) provided between the display main body and the cylinder assembly, which is respectively combined with the display main body and the base member; wherein the cylinder bracket is respectively combined with a rear of the display main body and the base member; wherein the cylinder assembly extends and retracts to vary a distance between the display main body and the base member; wherein the bracket tilts the display main body about an axis perpendicular to the cylinder assembly; and a display bracket (77) combined to the display main body and combined to the cylinder bracket.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 5, 6, 18, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barkheimer in view of Helgeland. Barkheimer further discloses that the auxiliary cylinder assembly comprises a hollow guide pipe combined with the base member

and a guide rod slidably provided in the guide pipe. Barkheimer discloses the claimed invention except for the limitation of the cylinder assembly having a pressurized cylinder. Helgeland teaches that it is known to have a display apparatus having a cylinder assembly comprising a pressurized cylinder (8) combined with a base member (13) and Helgeland inherently teaches a piston slidably provided in the cylinder and a cylinder rod (15) with a bottom combined with an upper surface of the piston and a top combined with the display main body. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the cylinder assembly in Barkheimer to have included the cylinder assembly as taught by Helgeland for the purpose of providing an alternative, mechanically equivalent means for adjusting the height of the display apparatus.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi in view of U.S. Patent 6,397,761 to Moore. Mizoguchi discloses the claimed invention except for the limitation of a pressurized cylinder combined with the base member. Moore teaches a display apparatus (10) including a cylinder assembly comprising a pressurized cylinder (52) combined with a base member (54), a piston provided in the cylinder (inherently taught by Moore since the cylinder is a pneumatic cylinder with a piston means), and a cylinder rod with one end combined with the piston and another end combined with the cylinder bracket. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the cylinder assembly in Mizoguchi to have included the cylinder assembly as taught by Moore for the purpose of providing an alternative and mechanically equivalent means for adjusting the height of the display main body in relation to the base member.

Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizoguchi in view of U.S. Patent 6,367,756 to Wang. Mizoguchi discloses the claimed invention except for the limitation of the display bracket and the cylinder bracket having a pair of first and second tilting brackets. Wang teaches an adjustable device support for anchoring a liquid crystal display to a support surface, the device including display bracket (20 & 30) comprising a pair of first tilting brackets (22), each having a bolt inserting hole (222); a cylinder bracket (10) comprising a pair of second tilting brackets (@14), each corresponding to one of the pair of first tilting brackets, and each having a bolt inserting hole (144), and wherein the a pair of tilting bolts (26) are respectively inserted through the bolt inserting holes of the corresponding first and second tilting brackets, and a pair of tilting nuts (24), respectively corresponding to the pair of tilting bolts, are combined to the pair of tilting nuts to movably combine the display bracket and the cylinder bracket with a binding force of predetermined magnitude which generates a friction of predetermined magnitude between the display bracket and the cylinder bracket. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the display and cylinder brackets in Mizoguchi to have included the display and cylinder brackets as taught by Wang for providing a alternative and mechanically equivalent means for adjusting the tilt angle of the display main body in relation to the cylinder assembly.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Helgeland in view of U.S. Patent 4,166,522 to Bourcier de Carbon. Helgeland discloses a cylinder assembly for a display apparatus, combined to a base member (13) and a display main body (7), the cylinder assembly comprising: a cylinder (8) pressurized with a fluid and combined to the base member; a piston slidably provided in the cylinder (this is inherent

Art Unit: 3632

since Helgeland discloses a piston rod cylinder assembly); and a cylinder rod (15), combined at a first end to the display main body and combined at a second end to the piston, such that the cylinder rod extends and retracts from the cylinder to vary a distance between the display main body and the base member. Helgeland discloses the claimed invention except for the limitation of at least one through hole in the piston. Bourcier de Carbon teaches a pneumatic cylinder assembly comprising a cylinder (1) pressurized with a fluid, a piston (4) slidably provided in the cylinder, a cylinder rod (8), combined at a first end to a supporting element (11) and at a second end to the piston, such that the cylinder rod extends and retracts from the cylinder to vary distance, and wherein the piston is provided with at least one through hole (6 or 7). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the cylinder assembly in Helgeland to have included the cylinder assembly as taught by Bourcier de Carbon for the purpose of providing a means for gauging the allowance or prevention of the passage of the fluid through the opening in the piston.

Allowable Subject Matter

Claims 3, 7, 23-25, and 28-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 3,788,587 to Stemmler

U.S. Patent 4,329,800 to Shuman

U.S. Patent 5,437,236 to Zeiner

U.S. Patent 5,751,548 to Hall et al.

U.S. Patent 5,975,472 to Hung

U.S. Patent 6,116,690 to Larson

U.S. Patent 6,592,090 to Li

U.S. Patent 6,702,238 to Wang

German Publication DE 421341 to Mallinowski

Stemmler discloses resilient column with a pneumatic cylinder. Shuman discloses an adjustable display device. Zeiner discloses multi-functional table with elevational capabilities. Hall et al. disclose a docking station for a portable computer providing rotational movement. Hung discloses a video display support including an air cylinder. Larson discloses a non-swiveling height adjustable work chair with at least two telescoping height adjustment mechanisms. Li discloses an object supporting structure including a load element that is downwardly connected to a connecting element. Wang discloses an adjustable supporting device for a display panel. Mallinowski discloses a computer housing adjustment monitor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita M. King whose telephone number is (703) 308-2162. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leslie A. Braun can be reached on (703) 308-2156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Anita M. King
Primary Examiner
Art Unit 3632

June 12, 2004